Minutes of Online Board of Studies Meeting of Electronics Engineering held on 21.12.2021

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Minutes of the online Board of studies meeting on 21-12-2021

Following members have attended the online meeting;

1.	Dr. Laxmi Shrivastava	Chairperson, Associate Professor and Head
2.	Prof. Jyoti Singhai	RGPV nominee by Academic Council, Professor, MANIT, Bhopal
3.	Dr N S Ragava	External Member, Professor, ECE Deptt., DTU, Delhi
4.	Er. Pankaj Agarwal	Alumni, External member, Assistant Engineer, UP Power Corporation Limited
5.	Prof. P. K. Singhal	Professor
6.	Dr. V. V. Thakare	Associate Professor
7.	Dr. R. P. Narwaria	Assistant Professor
8.	Dr. Karuna Markam	Assistant Professor
9.	Prof. Madhav Singh	Assistant Professor
10.	Ms. Pooja Sahoo	Assistant Professor
11.	Prof. D. K. Parsediya	Assistant Professor
12.	Dr. Sandeep Sharma	Assistant Professor
13.	Dr. Vikas Mahor	Assistant Professor
14.	Dr. Rahul Dubey	Assistant Professor
15.	Dr. Hemant Choubey	Assistant Professor
16.	Dr. Deepak Batham	Assistant Professor
17.	Dr. Varun Sharma	Assistant Professor
18.	Dr. Shubhi Kansal	Assistant Professor
19.	Dr. Sushmita Chaudhary	Assistant Professor
20.	Dr. Dinesh Rano	Assistant Professor
21.	Mr. Manoj Kumar	Assistant Professor
22.	Dr. Tej Singh	Assistant Professor
23.	Dr. Pawan Dubey	Assistant Professor
24.	Dr. Vikram	Assistant Professor

Following external members could not attend the meeting:

1. Dr Alok Jain, V.C. Nominee, RGPV, Professor, SATI, Vidisha
2. Er. Gaurav Tripathi, Representative from industry/ corporate sector/ allied area External member, Sr. Enterprise Architect, HCL Technologies SEZ, Noida

At the onset, the chairperson welcomed external members to the meeting of BoS and placed the agenda for the deliberation to the members. The following deliberations were made as per the items of circulated agenda:

- Minutes of the last BoS held on 08-06-2021 were confirmed.

BoS Agenda Items	
Item 1	To propose the **scheme structure of VIII Semester** with the provision of Two Departmental Electives and one Open Category (OC)Course**, to be offered in online mode** with credit transfer for the batch admitted in 2018-19. The scheme structure for VIII Semester with the provision of two departmental electives has been discussed and finalized. Same can be find out in Annexure-I(A).

Item 2

To propose the list of courses which the students can opt from SWAYAM/NPTEL/ other MOOC Platforms/ Institution (MITS) MOOC, to be offered in ***online mode under Departmental Elective (DE) category,*** for credit transfer in the ***VIII Semester*** under the flexible curriculum (*Batch admitted in 2018-19)*

Following are the lists of courses finalized which the students can opt from SWAYAM/NPTEL/ other MOOC Platforms/ Institution (MITS) MOOC, to be offered in ***online mode under Departmental Elective (DE) category,*** for credit transfer in the ***VIII Semester*** under the flexible curriculum (*Batch admitted in 2018-19)*

S.No	Category Code	Course Code	Name of The course	Duration of the Course in weeks	Course Registration		Name of the Mentor Faculty
					Start Date	End Date	
Electronics Engineering							
1	DE-5	140854	Fundamental of power Electronics	12	12-11-2020	31-01-2021	Dr. R P Narwaria
2		140855	Biomedical Signal Processing	12	12-11-2020	31-01-2021	Dr. Hemant Chaubey
3		140853	Power Management Integrated Circuits	12	12-11-2020	31-01-2021	Dr. Vikas Mahor
4	DE-6	140861	Design and Analysis of VLSI Subsystems	12	12-11-2020	31-01-2021	Dr. Shubhi Kansal
5		140862	An Introduction to Information Theory	08	12-11-2020	31-01-2021	Prof. Pooja Sahoo
6		140863	Fundamentals of MIMO Wireless Communication	08	12-11-2020	31-01-2021	Dr. Karuna Markam

Item 3

To propose the list of courses which the students can opt from SWAYAM/NPTEL/MOOC Platform, to be offered in ***online mode from*** SWAYAM/NPTEL/MITS MOOCs/ other MOOC Platforms) ***under Open Category (OC)*** Courses, for credit transfer in the ***VIII Semester under*** the flexible curriculum (*Batch admitted in 2018-19)*

Following is the list of courses which the students can opt from SWAYAM/NPTEL/MOOC Platform, to be offered in ***online mode from*** SWAYAM/NPTEL/MITS MOOCs/ other MOOC Platforms) ***under Open Category (OC)*** Courses, for credit transfer in the ***VIII Semester under*** the flexible curriculum (*Batch admitted in 2018-19)*

S.No	Category Code	Course Code	Name of The course	Duration of the Course in weeks	Course Registration		Name of the Mentor Faculty
					Start Date	End Date	
Electronics Engineering							
1	OC-4	900601	Linear Dynamical System	12	12-11-2020	31-01-2021	Prof. D K Parsedia
2		900602	Sensors and Actuators	12	12-11-2020	31-01-	Dr Sushmita

						2021	Chaudhari

Item 4

To propose the course and syllabi of MITS*MOOC* Course along with the Course Outcomes for credit transfer in the *VIII Semester* under the flexible curriculum *(Batch admitted in 2018-19)*

Course and syllabi of MITS MOOCS have been discussed and finalized with the consent of external and Internal member of BoS. Same can be find out in Annexure-II.

S.No	Subject Code	Subject Name
1	140861	Digital Filter Design
2	140862	EEG Signal Processing
3	140863	Optical Networks

Item 5

To propose the list of "Additional Courses" which can be opted for getting an

(i) Honours (for students of the host department)

(ii) Minor Specialization (for students of other departments)

*[These will be offered through SWAYAM/NPTEL/MOOC based Platforms for the **VI semester** (for the batch admitted in 2019-20) and for **VIII semester students** (for the batch admitted in 2018-19)]*

Following are the lists of "Additional Courses" which can be opted for getting an

(i) Honours (for students of the host department)

(ii) Minor Specialization (for students of other departments)

*[These will be offered through SWAYAM/NPTEL/MOOC based Platforms for the **VI semester** (for the batch admitted in 2019-20) and for **VIII semester students** (for the batch admitted in 2018-19)]*

Category	Semester	Name of The course	Duration of the Course in weeks	Course Registration		Name of the Mentor Faculty
				Start Date	End Date	
Electronics Engineering (VI Semester)						
Hons	VI	Electromagnetic Waves in Guided and Wireless Media	08	12 Nov 2021	21 Feb 2022	Dr. Vandana Vikas Thakare
	VI	CMOS Digital VLSI Design	12	12 Nov 2021	31 Jan 2022	Prof. Madhav Singh
	VI	Multirate DSP	12	12 Nov 2021	31 Jan 2022	Dr. Dinesh Rano
Minors	VI	Integrated Circuits, MOSFETs, Op-Amps and their Application	12	12 Nov 2021	31 Jan 2022	Prof. D K Parsedia
	VI	Principles of Digital Communications	12	12 Nov 2021	31 Jan 2022	Dr. Sushmita Chaudhari
Electronics Engineering (VIII Semester)						
Hons	VIII	Architectural Design of Digital Integrated Circuits	12	12 Nov 2021	31 Jan 2022	Dr. Shubhi Kansal
	VIII	Nonlinear System Analysis	08	12 Nov 2021	31 Jan 2022	Dr. Deepak Batham
	VIII	Computer Vision and Image Processing - Fundamentals and Applications	12	12 Nov 2021	31 Jan 2022	Dr. Rahul Dubey
Minors	VIII	An Introduction to	08	12 Nov 2021	31 Jan 2022	Prof. Pooja

		Information Theory					Sahoo
	VIII	Signal Processing Techniques and its Applications	12	12 Nov 2021	31 Jan 2022		Dr. Rahul Dubey

Item 6

To review and finalize the syllabi for all ***Departmental Core (DC) Courses*** of ***VI Semester (for batches admitted in 2019-20)*** under the flexible curriculum along with their COs

Syllabi for all ***Departmental Core (DC) Courses*** of ***VI Semester (for batches admitted in 2019-20)*** under the flexible curriculum along with their COs have been discussed and finalized. Same can be find out in Annexure-III.

S.No	Subject Code	Subject Name
1	140601	Microprocessor & Interfacing
2	140602	Digital Signal Processing

Item 7

To propose the list of courses from SWAYAM/NPTEL/MOOC Platforms to be offered ***(for batches admitted in 2019-20)*** in online mode under ***Departmental Elective (DE) Courses*** with credit transfer, in the ***VI Semester***

The list of courses from SWAYAM/NPTEL/MOOC Platforms to be offered ***(for batches admitted in 2019-20)*** in online mode under ***Departmental Elective (DE) Courses*** with credit transfer, in the ***VI Semester***has been finalized.

S.No	Category Code	Course Code	Name of The course	Duration of the Course in weeks	Course Registration		Name of the Mentor Faculty
					Start Date	End Date	
Electronics Engineering							
1	Departmental Elective (DE-2)	140651	Spread Spectrum Communications and Jamming	12	12 Nov 2021	31 Jan 2022	Dr. Sandeep Sharma
2		140652	Digital IC Design	12	12 Nov 2021	31 Jan 2022	Dr Varun Sharma
3		140653	Fuzzy Sets, Logic and Systems & Applications	12	12 Nov 2021	31 Jan 2022	Dr Deepak Batham

Item 8

To review and finalize the courses & syllabi to be offered ***(for batches admitted in 2019-20)*** under the ***Open Category (OC) Courses***(in traditional mode) for ***VI semester*** students of other departments along with their COs

The courses & syllabi to be offered ***(for batches admitted in 2019-20)*** under the ***Open Category (OC) Courses*** (in traditional mode) for ***VI semester*** students of other departments along with their COs has been discussed and finalized. Same can be find out in ANNEXURE-V.

S.No	Subject Code	Subject Name
1	900104	Intelligent Control
2	900105	Embedded Systems

Item 9

To review and finalize the Experiment list/ Lab manual for Laboratory Courses to be offered in VI semester ***(for batches admitted in 2019-20)***

The Experiment list/ Lab manual for Laboratory Courses to be offered in VI semester ***(for batches admitted in 2019-20)*** has been finalized. Same can be find out in ANNEXURE-VI.

S.No	Subject Code	Subject Name
1	140601	Microprocessor and Interfacing
3	140606	Minor Project-I

Item 10

To review and finalize the scheme and syllabi of **B. Tech.** ***IV Semester (for batches admitted in 2020-21)*** under the flexible curriculum along with their COs

The scheme and syllabi of **B. Tech.** ***IV Semester (for batches admitted in 2020-21)*** under the flexible curriculum along with their COs has been discussed and finalized. Same can be find out in ANNEXURE-VII.

<table>
<tr><td>Item 11</td><td>To review and finalize the Experiment list/ Lab manual for Laboratory Courses to be offered in IV(for batch admitted in 2020-21)

The Experiment list/ Lab manual for Laboratory Courses to be offered in IV (for batch admitted in 2020-21) has been finalized. Same can be find out in ANNEXURE-VIII.

<table>
<tr><th>S.No</th><th>Subject Code</th><th>Subject Name</th></tr>
<tr><td>1</td><td>140411</td><td>Digital Circuits and Systems</td></tr>
<tr><td>2</td><td>140412</td><td>Analog Integrated Circuits</td></tr>
<tr><td>3</td><td>140413</td><td>Analog Communications</td></tr>
<tr><td>4</td><td>140415</td><td>PCB Design Lab</td></tr>
</table></td></tr>
<tr><td>Item 12</td><td>To review and finalize the suggestive list of projects which can be assigned under the ‘Skill based mini-project’ category in various laboratory courses to be offered in Jan - June 2022 semester during IV Semester (for the batch admitted in 2020-21).

The list of projects which can be assigned under the ‘Skill based mini-project’ category in various laboratory courses to be offered in Jan - June 2022 semester during IV Semester (for the batch admitted in 2020-21) has been discussed and finalized. Same can be find out in ANNEXURE-IX.</td></tr>
<tr><td>Item 13</td><td>To ratify the Scheme & Syllabi, list of experiments and skill based mini projects of First semester of the newly started B. Tech. programmes in the emerging areas (AI & ML, AI & DS, CSD) (started from 2021-22 Session) {Applicable for the concerned departments}
NA</td></tr>
<tr><td>Item 14</td><td>To ratify the Scheme & Syllabi, list of experiments and skill based mini projects of First SemesterB. Tech. programmes [admitted batch 2021-22 Session] (if any)
NA</td></tr>
<tr><td>Item 15</td><td>To prepare and recommend the Scheme & Syllabi (along with the Course Outcomes) of II semester of the newly started B. Tech. programmes in the emerging areas (AI & ML, AI & DS, CSD) (started from 2021-22 Session) {Applicable for the concerned departments}
NA</td></tr>
<tr><td>Item 16</td><td>To prepare and recommend the list of experiments and skill based mini projects of II semester of the newly started B. Tech. programmes in the emerging areas (AI & ML, AI & DS, CSD) (started from 2021-22 Session) {Applicable for the concerned departments}
NA</td></tr>
<tr><td>Item 17</td><td>To review and finalize the Scheme & Syllabi (along with the Course Outcomes) of II semester B. Tech. programmes (batch admitted 2021-22 Session)

The Scheme & Syllabi (along with the Course Outcomes) of II semester B. Tech. programmes (batch admitted 2021-22 Session) has been discussed and finalized. Same can be find out in ANNEXURE-X(A), and ANNEXURE-X(B).</td></tr>
<tr><td>Item 18</td><td>To review and finalize the list of experiments and skill based mini projects of II semester B. Tech. programmes (batch admitted 2021-22 Session)
The list of experiments and skill based mini projects of II semester B. Tech. programmes (batch admitted 2021-22 Session) has been reviewed and finalized with the consent of BOS members. Same can be find out in ANNEXURE-XI.</td></tr>
<tr><td>Item 19</td><td>To propose the course “Economics Entrepreneurship & Management” and its syllabi along with the Course Outcomes (COs) for the V Semester B.Tech. (Batch admitted 2020-21 onwards).
{to be proposed and recommended by Management Department}
NA</td></tr>
</table>

Item 20	To revise and recommend the course **"Energy, Environment, Ecology & Society"** and its syllabi along with the Course Outcomes (COs) for the III Semester B.Tech. (Batch admitted 2021-22 onwards). **{inclusion of contents related to "Sustainability" is to be done}** ***{to be proposed and recommended*** by the***Civil Engineering Department***} NA
Item 21	To propose a new course: **Universal Human Values & Professional Ethics (HVPE)**& its syllabi along with the Course Outcomes (COs), as Mandatory Course (MC) for the batch admitted in 2020-21onwards **{A portion on 'gender sensitization'also to be included in the syllabus of this cou**rse} ***{to be proposed and recommended* by*Humanities Department***} NA
Item 22	To review the CO attainments, to identify gaps and to suggest corrective measures for the improvement in the CO attainment levels for (i) I year April–September 2021 Semester (ii) January-June 2021 Session for II to IV year students CO attainment has been discussed and suggestion of experts has been taken into consideration. This can be find out in ANNEXURE-XII. **Total No of courses** / **Total number of COs** / **Number of COs NOT attained level 3** / **Percentage of COs not attained** 12 / 62 / 4 / 7%
Item 23	To review curricula feedback from various stakeholders, its analysis and impact {**Stakeholder feedback analysis must also contain an action taken report (ATR) and the details/data of the stakeholder who have responded through GOOGLE form (such as Name, organization, mail id, phone no if available) must also be shared along with the feedback for the alumni/employer.}** Curricula feedback from various stakeholders, its analysis and impact has been reviewed. Same can be find out in ANNEXURE-XIII.
Item 24	To review Course Outcomes (COs) feedback of various courses, its analysis and impact. Course Outcomes (COs) feedback of various courses, its analysis and impact has been reviewed and same can be find out in ANNEXURE-XIV.
Item 25	Any other matter

During the meeting experts suggested the following points:

1. List of experiments for VI semester of all subjects has been revised as per the suggestions of external experts.
2. List of skill based mini projects for IV Semester of all subjects has been updated as per the suggestions of external experts.
3. Courses for DE-1and OC-1to be taught in traditional mode were finalized with the consent of external experts.
4. Courses for DE-5, DE-6 and OC-4 to be run through NPTEL were finalized with the consent of external experts.
5. Suggestions of experts in the CO attainment have been taken into consideration.

6. COs of Communication Network has been modified.

Mr. Manoj Kumar	**Dr.Vikram**	**Dr. Tej Singh**
Dr. Pawan Dubey	**Dr. Dinesh Rano**	**Dr. Sushmita Chaudhary**
Dr. Shubhi Kansal	**Dr. Varun Sharma**	**Dr. Deepak Batham**
Dr. Hemant Choubey	**Dr. Rahul Dubey**	**Dr. Vikas Mahor**
Dr. Sandeep Sharma	**Prof. D K Parsedia**	**Prof. Pooja Sahoo**
Prof. Madhav Singh	**Dr Karuna Markam**	**Dr. R. P. Narwaria**
Dr. Vandana Vikas Thakare	**Dr. P. K. Singhal**	

Er. Pankaj Agarwal	**Dr. N. S. Ragava**	**Dr. Jyoti Singhai**
(External member)	**(External member)**	**(External member)**

Dr. Laxmi Shrivastava

Head of the Department